UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,812	07/22/2003	Richard Clark	019680-005700US	7777

			EXAMINER
20350	7590	01/10/2006	BRAUTIGAM, ALYSA N

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

ART UNIT	PAPER NUMBER
2676	

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *22 July 2003*.

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-42* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-42* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *22 July 2003* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

DETAILED ACTION

Drawings

1.   The replacement drawings for Figures 8a and 8b were received on 3 May 2004.

These drawings are acknowledged.

2.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference character(s) not mentioned in the

description: **Figure 3E, Items 300e and 301e (see page 14, lines 18-19 which**

discloses 300d and 301d [¶0059]). Corrected drawing sheets in compliance with 37

CFR 1.121(d), or amendment to the specification to add the reference character(s) in

the description in compliance with 37 CFR 1.121(b) are required in reply to the Office

action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the

sheet, even if only one figure is being amended. Each drawing sheet submitted after the

filing date of an application must be labeled in the top margin as either "Replacement

Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by

the examiner, the applicant will be notified and informed of any required corrective

action in the next Office action. The objection to the drawings will not be held in

abeyance.

3.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they do not include the following reference sign(s) mentioned in the

description:

- **Figure 3C, Item 301c (in the left hand image which is labeled monitor 302;
  see page 13, line 26 for reference [¶0056]).**

- **Figure 7, Item 730 (see page 19, lines 17 and 19 for reference [¶0077])**

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to

the Office action to avoid abandonment of the application. Any amended replacement

drawing sheet should include all of the figures appearing on the immediate prior version

of the sheet, even if only one figure is being amended. Each drawing sheet submitted

after the filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are

not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held

in abeyance.

Claim Objections

4.   Claim 29 is objected to because of the following informalities: Line 2 discloses

the "**luminositycompensation**" module. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Doribe

(6,545,685).

7.   In regards to claim 1, Doribe discloses a method for generating a luminosity

compensated image, the method comprising:

- defining a luminosity texture having a plurality of luminosity texels (Figures 8-9; col. 8:31-50);

- converting pixel data for an underlying image to an image texture having a plurality of image texels (Figures 8-9; col. 8:31-50);

- blending the image texture onto a target surface having a shape (col. 10:8-36); and

- blending the luminosity texture onto the target surface, thereby generating luminosity compensated pixel data for the image (col. 10:8-36).

8.   In regards to claim 2, Doribe discloses the method of claim 1, as contained

hereinabove. In addition, Doribe discloses wherein the target surface comprises a

polygon having a plurality of vertices, at least one of the vertices being associated with

one of the image texels of the image texture (Figures 8-9; col. 8:31-50; col. 10:8-36).

9.   In regards to claim 3, Doribe discloses the method of claim 1, as contained

hereinabove. In addition, Doribe discloses wherein the method is further comprising

providing the luminosity compensated pixel data to a display device (col. 3:10-30).

10.   In regards to claim 4, Doribe discloses the method of claim 3, as contained

hereinabove. In addition, Doribe discloses wherein providing the luminosity

compensated pixel data to the display device includes: storing the luminosity

compensated pixel data in a frame buffer; and subsequently scanning out the frame

buffer data, thereby providing data to the display device (Figures 8-9; col. 8:31-50).

11.   In regards to claim 5, Doribe discloses the method of claim 1, as contained

hereinabove. In addition, Doribe discloses wherein each luminosity texel includes a

scaling factor (col. 6:24-55).

12.   In regards to claim 6, Doribe discloses the method of claim 5, as contained

hereinabove. In addition, Doribe discloses wherein blending the luminosity texture onto

the target surface includes: selecting one of the luminosity texels; and multiplying a pixel

value from the target surface by the scaling factor of the selected luminosity texel (col.

6:24-55).

13.   In regards to claim 7, Doribe discloses the method of claim 5, as contained

hereinabove. In addition, Doribe discloses wherein the scaling factors define a

luminosity gradient to be applied across an area of the image (col. 1:61-67; col. 2:1-8;

col. 6:24-55).

14.   In regards to claim 8, Doribe discloses the method of claim 1, as contained

hereinabove. In addition, Doribe discloses further comprising: providing a user interface

enabling a user to modify the shape of the target surface (col. 1:15-67; col. 2:1-51; col. 7: 42-50; Figure 4 discloses the input devices).

15.   In regards to claim 9, Doribe discloses the method of claim 8, as contained hereinabove. In addition, Doribe discloses wherein the act of defining the luminosity texture includes automatically updating one or more of the luminosity texels in response to a user modification of the shape of the target surface (col. 7:20-23).

16.   In regards to claim 10, Doribe discloses the method of claim 9, as contained hereinabove. In addition, Doribe discloses wherein automatically updating one or more of the luminosity texels includes computing a luminosity scaling factor based on a distance to a location on the target surface that maps to the texel (col. 7:20-23).

17.   In regards to claim 11, Doribe discloses the method of claim 10, as contained hereinabove. In addition, Doribe discloses wherein the distance is determined from a depth coordinate of the location on the target surface (col. 6: 24-55).

18.   In regards to claim 12, Doribe discloses the method of claim 1, as contained hereinabove. In addition, Doribe discloses wherein the luminosity texture includes a low luminosity region (col. 1:61-67; col. 2:1-8; Figures 7-8; col. 7:32 through col. 8:30).

19.   In regards to claim 13, Doribe discloses the method of claim 12, as contained hereinabove. In addition, Doribe discloses wherein the low luminosity region corresponds to an overlap region in an image to be displayed using a plurality of display devices configured to display overlapping image elements (col. 1:61-67; col. 2:1-8; Figures 7-8; col. 7:32 through col. 8:30).

20.   In regards to claim 14, Doribe discloses the method of claim 1, as contained

hereinabove. In addition, Doribe discloses wherein the luminosity texture includes dark

texels for forming a visible pattern superimposed on the underlying image (Figures 7-8;

col. 7:32 through col. 8:30).

21.   In regards to claim 15, Doribe discloses the method of claim 14, as contained

hereinabove. In addition, Doribe discloses wherein the visible pattern corresponds to a

message readable by a user (Figures 7-8; col. 7:32 through col. 8:30 where the pattern

can be anything a user specifies including a message, as broadly as defined).

22.   In regards to claim 16, Doribe discloses the method of claim 1, as contained

hereinabove. In addition, Doribe discloses the method further comprising providing a

user interface enabling a user to define the luminosity texture (col. 1:15-67; col. 2:1-51;

col. 7: 42-50; Figure 4 discloses the input devices).

23.   In regards to claim 17, Doribe discloses the method of claim 16, as contained

hereinabove. In addition, Doribe discloses wherein the user interface further enables

the user to save the luminosity texture to a file (col. 1:15-67; col. 2:1-51; col. 4: 20-37;

col. 7: 42-50; Figure 4 discloses the input devices; Figures 8-9; col. 8:31-50; Figure 14;

col. 6:24-56).

24.   In regards to claim 18, Doribe discloses the method of claim 17, as contained

hereinabove. In addition, Doribe discloses wherein the user interface further enables

the user to select a previously saved luminosity texture file to be applied (col. 1:15-67;

col. 2:1-51; col. 4: 20-37; col. 7: 42-50; Figure 4 discloses the input devices; Figures 8-

9; col. 8:31-50; Figure 14; col. 6:24-56).

25.   In regards to claim 19, Doribe discloses the method of claim 16, as contained

hereinabove. In addition, Doribe discloses wherein the user interface further enables

the user to modify the luminosity texture (col. 1:15-67; col. 2:1-51; col. 4: 20-37; col. 7:

42-50; Figure 4 discloses the input devices; Figures 8-9; col. 8:31-50; Figure 14; col.

6:24-56).

26.   In regards to claim 20, Doribe discloses the method of claim 1, as contained

hereinabove. In addition, Doribe discloses wherein each luminosity texel includes an

independent scaling factor for each of a plurality of color components (Figure 9, col.

8:31-50).

27.   In regards to claim 21, Doribe discloses the method of claim 20, as contained

hereinabove. In addition, Doribe discloses wherein the plurality of color components

includes a red component, a green component, and a blue component (Figure 9, col.

8:31-50 where red, green, and blue are the accepted and common color components of

the system as described by Doribe).

28.   In regards to claim 22, Doribe discloses a graphics processing system

comprising:

- a texture generation module configured to convert pixel data for an underlying

  image to an image texture having a plurality of image texels (Figure 4, Item 411

  [431-433]); Figures 8-9; col. 8:31-50; col. 6:24-55);

- a texture memory configured to store the underlying image texture and a

  luminosity texture having a plurality of luminosity texels (Figure 4; item 436; col.

  6:24-55); and

- a multistage texture blending module configured to blend each of the image

  texture and the luminosity texture onto a target surface having a shape, thereby

  generating luminosity-compensated pixel data for an image (Figure 4, Item 411

  [431-433]); Figures 8-9; col. 8:31-50; col. 6:24-55).

29.   In regards to claim 23, Doribe discloses the graphics processing system of claim

22, as contained hereinabove. In addition, Doribe discloses wherein the target surface

comprises a polygon having a plurality of vertices, at least one of the vertices being

associated with a texture coordinate of the image texture (Figures 8-9; col. 8:31-50; col.

10:8-36).

30.   In regards to claim 24, Doribe discloses the graphics processing system of claim

22, as contained hereinabove. In addition, Doribe discloses further comprising a frame

buffer configured to store the luminosity-compensated pixel data (Figures 8-9; col. 8:31-

50)..

31.   In regards to claim 25, Doribe discloses the graphics processing system of claim

22, as contained hereinabove. In addition, Doribe discloses further comprising scanout

control logic configured to provide the luminosity-compensated pixel data to a display

device (Figures 8-9; col. 8:31-50).

32.   In regards to claim 26, Doribe discloses the graphics processing system of claim

22, as contained hereinabove. In addition, Doribe discloses wherein each luminosity

texel includes a scaling factor (Figure 9, col. 8:31-50).

33.   In regards to claim 27, Doribe discloses the graphics processing system of claim

22, as contained hereinabove. In addition, Doribe discloses further comprising: a user

interface module configured to enable a user to modify the shape of the target surface
(col. 1:15-67; col. 2:1-51; col. 7: 42-50; Figure 4 discloses the input devices).

34.   In regards to claim 28, Doribe discloses the graphics processing system of claim
27, as contained hereinabove. In addition, Doribe discloses the system further
comprising a luminosity compensation module configured to automatically update the
luminosity texture stored in the texture memory in response to a user modification of the
shape of the target surface (col. 7:20-23).

35.   In regards to claim 29, Doribe discloses the graphics processing system of claim
28, as contained hereinabove. In addition, Doribe discloses wherein the luminosity
compensation module is further configured to compute an updated value for a texel of
the luminosity texture based on a distance to a location on the target surface that maps
to the texel (col. 7:20-23).

36.   In regards to claim 30, Doribe discloses the graphics processing system of claim
29, as contained hereinabove. In addition, Doribe discloses wherein the distance is
determined from a depth coordinate of the location on the target surface (col. 6: 24-55).

37.   In regards to claim 31, Doribe discloses the graphics processing system of claim
22, as contained hereinabove. In addition, Doribe discloses wherein the luminosity
texture includes a low luminosity region (col. 1:61-67; col. 2:1-8; Figures 7-8; col. 7:32
through col. 8:30).

38.   In regards to claim 32, Doribe discloses the graphics processing system of claim
31, as contained hereinabove. In addition, Doribe discloses wherein the low luminosity
region corresponds to an overlap region in an image to be displayed using a plurality of

display devices configured to display overlapping image elements (col. 1:61-67; col. 2:1-8; Figures 7-8; col. 7:32 through col. 8:30).

39.   In regards to claim 33, Doribe discloses the graphics processing system of claim 22, as contained hereinabove. In addition, Doribe discloses wherein the luminosity texture includes darkened texels forming a visible pattern (Figures 7-8; col. 7:32 through col. 8:30).

40.   In regards to claim 34, Doribe discloses the graphics processing system of claim 33, as contained hereinabove. In addition, Doribe discloses wherein the pattern corresponds to a message readable by a user (Figures 7-8; col. 7:32 through col. 8:30 where the pattern can be anything a user specifies including a message, as broadly as defined).

41.   In regards to claim 35, Doribe discloses the graphics processing system of claim 22, as contained hereinabove. In addition, Doribe discloses the system further comprising a user interface module configured to enable a user to define the luminosity texture (col. 1:15-67; col. 2:1-51; col. 7: 42-50; Figure 4 discloses the input devices).

42.   In regards to claim 36, Doribe discloses a computer program product (Figure 4, Item 400) comprising:

- a computer readable medium encoded with program code (col. 2:21-31 and claim 16), the program code including:

- program code for defining a luminosity texture that includes a scaling factor for each of a plurality of luminosity texels (Figures 8-9; col. 8:31-50);

- program code for converting pixel color values of an underlying image to an image texture having a plurality of image texels (Figures 8-9; col. 8:31-50);

- program code for blending the image texture onto a surface having a shape (col. 10:8-36); and

- program code for blending the luminosity texture onto the target surface, thereby generating luminosity compensated pixel data for the image (col. 10:8-36).

43.   In regards to claim 37, Doribe discloses the computer program product of claim 36, wherein the computer readable medium comprises a magnetic storage medium encoded with the program code (col. 4:48-55).

44.   In regards to claim 38, Doribe discloses the computer program product of claim 36, wherein the computer readable medium comprises an optical storage medium encoded with the program code (col. 4:48-55).

45.   In regards to claim 39, Doribe discloses the computer program product of claim 36, wherein the computer readable medium comprises a carrier signal encoded with the program code and adapted for transmission via a network (Figure 4; col. 4:48-55).

46.   In regards to claim 40, Doribe discloses the computer program product of claim 36, wherein the program code further includes program code for providing a user interface enabling a user to define the luminosity texture (col. 1:15-67; col. 2:1-51; col. 7: 42-50; Figure 4 discloses the input devices).

47.   In regards to claim 41, Doribe discloses the computer program product of claim 36, wherein the program code further includes program code for providing a user

interface enabling a user to modify the shape of the target surface (col. 1:15-67; col.

2:1-51; col. 7: 42-50; Figure 4 discloses the input devices).

48.   In regards to claim 42, Doribe discloses the computer program product of claim

41, wherein the program code further includes program code for updating the scaling

factor for each luminosity texel based on the modified shape of the target surface (col.
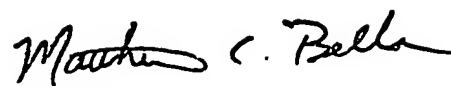
7:20-23).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alysa N. Brautigam whose telephone number is 571-

272-7780. The examiner can normally be reached on 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

anb

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600